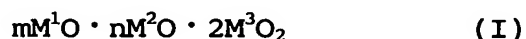


## CLAIMS

1. A phosphor comprising a fluorescent substance  $A^1$  containing a compound represented by the following formula (I) and at least one activator selected from the group consisting of Eu and Mn, and a fluorescent substance  $B^1$  containing an aluminate;



[in the formula (I),

$M^1$  is at least two selected from the group consisting of Ca, Sr and Ba, or Ca alone or Ba alone;

$M^2$  is at least one selected from the group consisting of Mg and Zn;

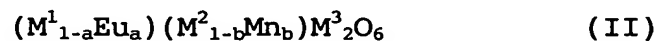
$M^3$  is at least one selected from the group consisting of Si and Ge;

$$0.5 \leq m \leq 3.5; \text{ and}$$

$$0.5 \leq n \leq 2.5].$$

2. The phosphor according to claim 1, wherein the weight ratio of fluorescent substance  $A^1$ /fluorescent substance  $B^1$  is from 5/95 to 95/5.

3. The phosphor according to claim 1 or 2, wherein the fluorescent substance  $A^1$  is a compound represented by the following formula (II):



[in the formula (II),

$M^1$  is at least two selected from the group consisting of Ca, Sr and Ba, or Ca alone or Ba alone;

$M^2$  is at least one selected from the group consisting of Mg and

Zn;

$M^3$  is at least one selected from the group consisting of Si and

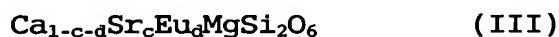
Ge;

$$0 \leq a \leq 0.5;$$

5  $0 \leq b \leq 0.5;$  and

$$0 < a + b].$$

4. The phosphor according to claim 1 or 2, wherein the fluorescent substance  $A^1$  is a compound represented by the following formula (III):

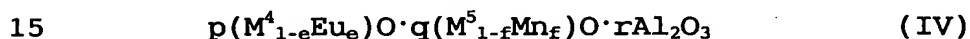


10 [in the formula (III),

$$0 \leq c \leq 0.1; \text{ and}$$

$$0 < d \leq 0.1].$$

5. The phosphor according to any of claims 1-4, wherein the aluminate is a compound represented by the following formula (IV):



[in the formula (IV),

$M^4$  is at least one selected from the group consisting of Ca, Sr and Ba;

$M^5$  is at least one selected from the group consisting of Mg and

20 Zn;

$$0.5 \leq p \leq 1.5;$$

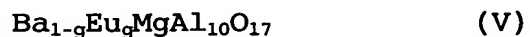
$$0.5 \leq q \leq 1.5;$$

$$4.5 \leq r \leq 5.5;$$

$$0 < e \leq 0.5; \text{ and}$$

25  $0 < f \leq 0.1].$

6. The phosphor according to any of claims 1-4, wherein the aluminate is a compound represented by the following formula (V):



[in the formula (V),

5  $0 < g \leq 0.3$ ].

7. The phosphor according to any of claims 1-6, wherein the fluorescent substance B<sup>1</sup> is in form of particles and D<sub>B</sub><sup>1</sup> that is the average primary particle diameter of the fluorescent substance B<sup>1</sup> is 0.2-5 times D<sub>A</sub><sup>1</sup> that is the primary particle diameter of the fluorescent substance A<sup>1</sup>.

8. . The phosphor according to any of claims 1-7 for a vacuum ultraviolet excited light-emitting device.

9. A phosphor paste comprising the phosphor according to any of claims 1-8, a solvent and a binder.

15